

Weekly Report

2019.04.22-2019.04.28

Job Summary

1. Paper reading:

1) Federated Optimization: Distributed Machine Learning for On-Device Intelligence

Content: discuss how to design algorithm in Federated setting, the best performance algorithm is a combination of Stochastic Variance Reduced Gradient(SVRG) and Distributed Approximate Newton(DANE) in the experiment.

2) TOWARDS FEDERATED LEARNING AT SCALE: SYSTEM DESIGN

Content: represent the framework and system design of a federated learning setting. It's applied in the tensorflow FL for training model on local devices.

3) Visual Analytics for Explainable Deep Learning

Content: introduce past work of visual analytics system design for deep learning, discuss the research gaps and opportunities.

4) Towards better analysis of machine learning models: A visual analytics perspective

Content: introduce past work of visual analytics system design for deep learning, discuss the research gaps and opportunities.

5) A visual analytical approach for transfer learning in classification

2. Survey:

Learn about tensorflow FL and WeBank FL framework and compare.

3. CCTV Project:

Divide the list into three parts and optimize the layout.

Work Plan

1. Reading more papers about explainable machine learning.
2. Read and code using tensorflow FL and WeBank FL.
3. Further perfect the design of CCTV Project.